DOCKET NO. OFFW01-00009 **PATENT**
Customer No. 23990

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	:	TROY A. USSERY, ET AL.
Serial No.	:	09/751,246
Filed	:	December 29, 2000
For	:	DATABASE MANAGEMENT SYSTEMS AND METHODS OF OPERATING THE SAME
Group No.	:	2134
Examiner	:	Thomas M. Ho

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
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Arlington, VA 22313-1450

Sir:

APPEAL BRIEF

The Appellants hereby file this Appeal Brief to the Board of Patent Appeals and Interferences ("Board") appealing a decision of the Examiner dated April 21, 2006, finally rejecting Claims 1-32. The Appellants timely filed a Notice of Appeal on July 21, 2006 that was received by the Patent and Trademark Office on July 25, 2006. The Appellants are filing this Appeal Brief on September 21, 2006 which is two (2) months from the date of the Notice of Appeal.

REAL PARTY IN INTEREST

This application is currently owned by Business-to-Investor, Inc. as indicated by an assignment recorded on December 20, 2000 in the Assignment Records of the United States Patent and Trademark Office at Reel 011414, Frame 0360.

RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1-32 have been finally rejected under 35 U.S.C. § 103(a).

Claims 1-18 have been finally rejected as being unpatentable over United States Patent No. 5,764,949 to Huang et al. ("*Huang*") in view of Worker Exposure Surveillance system, 1997, Oak Ridge Associated Universities ("WESS").

Claims 1, 6, 11 and 15 have been finally rejected as being unpatentable over United States Patent No. 4,769,772 to Dwyer ("*Dwyer*") in view of WESS.

Claims 19-32 have been finally rejected as being unpatentable over *Huang* in view of U. S. Patent No. 5,689,648 to Diaz et al. ("*Diaz*").

Claims 1-32 are shown in Appendix A.

STATUS OF AMENDMENTS

No amendments have been submitted and refused entry after issuance of the final Office Action dated April 21, 2006.

SUMMARY OF CLAIMED SUBJECT MATTER

The Appellants' invention comprises a database administrator 102 that comprises a security controller 106 that operates repeatedly on a periodic basis to parse or disassemble a database into selectable records and store the records in distributed memory units. (Specification, Page 22, Lines 13-16). The security controller 106 divides (e.g., decompiles, disassembles, parses, etc.) database 101 on any periodic basis. (Specification, Page 22, Line 19 to Page 23, Line 1). Database 101 has a fluid state rather than a static state in that the records of data are repeatedly divided as portions of database 101 are stored to memory units 108-112. (Specification, Page 24, Lines 4-6). Because the security controller 106 periodically divides the database 101 and relocates the individual data records (singularly or in groups), the security controller 106 is the only source for utilizing the key to the data link structure. If a data record or group is accessed by an unauthorized user, there is no link available for the unauthorized user to view the other linked records. (Specification, Page 27, Line 16 to Page 28, Line 10).

The database administrator 102 of the Appellants' invention also comprises an access controller 104 that operates to repeatedly establish views of ones of the selectable records responsive to the security controller 106 redistributing the database 101 over the distributed

memory units 108-112. Access controller 104 manages login and grants access to security controller 106. (Specification, Page 21, Lines 1-2). Login to access controller 104 may cause information to be retrieved from a profile table to create code for linking appropriate data records for the user to view or modify. The profile table is initially created by the authorized user and information in the table is used at every login to create a login table that allows security controller 106 to link the requested data records together to establish a view. (Specification, Page 25, Lines 2-8).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 1-18 stand rejected under 35 U.S.C. § 103(a) over United States Patent No. 5,764,949 to Huang et al. ("*Huang*") in view of Worker Exposure Surveillance system, 1997, Oak Ridge Associated Universities ("WESS").

2. Claims 1, 6, 11 and 15 stand rejected under 35 U.S.C. § 103(a) over United States Patent No. 4,769,772 to Dwyer ("*Dwyer*") in view of WESS.

3. Claims 19-32 stand rejected under 35 U.S.C. § 103(a) over *Huang* in view of U. S. Patent No. 5,689,648 to Diaz et al. ("*Diaz*").

ARGUMENT

The rejections of Claims 1–18 under 35 U.S.C. § 103(a) are improper and should be withdrawn. The rejections of Claims 1, 6, 11 and 15 under 35 U.S.C. § 103(a) are improper and should be withdrawn. The rejections of Claims 19–32 under 35 U.S.C. § 103(a) are improper and should be withdrawn.

A. STANDARD FOR OBVIOUSNESS REJECTIONS

During *ex parte* examinations of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142;

In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of non-obviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 USPQ 870, 873 (Fed. Cir. 1985). A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not be based on an applicant's disclosure. MPEP § 2142.

In order to establish obviousness by combining references there must be some teaching or suggestion in the prior art to combine the references. *Arkie Lures, Inc. v. Gene Larew Tackle, Inc.*, 119 F.3d 953, 957, 43 USPQ2d 1294, 1297 (Fed.Cir. 1997) ("It is insufficient to establish

obviousness that the separate elements of an invention existed in the prior art, absent some teaching or suggestion, in the prior art, to combine the references."); *In re Rouffet*, 149 F.3d 1350, 1355-56, 47 USPQ2d 1453, 1456 (Fed.Cir. 1998) ("When a rejection depends on a combination of prior art references, there must be some teaching, or motivation to combine the references.").

Evidence of a motivation to combine prior art references must be clear and particular if the trap of "hindsight" is to be avoided. *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999) (Evidence of a suggestion, teaching or motivation to combine prior art references must be "clear and particular." "Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence.'"). *In re Roufett*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed.Cir. 1998) ("[R]ejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability.'")

The Appellants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the claims of the Appellants' invention.

B. REJECTIONS OF CLAIMS 1-18

The Appellants respectfully submit that Claims 1-18 are not obvious in view of a combination of the *Huang* reference and the WESS reference and that the Examiner has not established a *prima facie* case of obviousness with respect to Claims 1-18. Therefore, the Appellants respectfully request the Examiner to withdraw the obviousness rejections of Claims 1-18. The Appellants direct the Examiner's attention to Claim 1, which contains unique and novel limitations:

> 1. (Previously Presented) For use in managing a database of selectable records, a database administrator for association with a computer system having distributed memory units, said database administrator comprising:
>
> a security controller that operates repeatedly on a periodic basis to (i) divide said database into portions and (ii) store ones of said portions to ones of said distributed memory units, said security controller thereby systematically periodically redistributing said database over said distributed memory units; and
>
> an access controller that operates to repeatedly establish views of ones of said selectable records responsive to said security controller periodically redistributing said database over said distributed memory units. (Emphasis added).

The Appellants' invention as claimed in Claim 1 comprises a security controller 106 that periodically parses or disassembles a database into selectable records and stores the records in distributed memory units. (Specification, Page 22, Lines 13-16). It is important to note that the "distributed memory units" comprise "at least two physically separate memory units." (Specification, Page 22, Lines 4-6). The security controller 106 divides (e.g., decompiles, disassembles, parses, etc.) database 101 on any periodic basis. (Specification, Page 22, Line 19 to Page 23, Line 1). For example, the periodic basis may be: clock pulses, a threshold number

of accesses to database 101 or some portion thereof for any given time period, the time of day, time since the last divide, or any other measurable event. The periodic basis may also be at random (Specification, Page 23, Lines 1-6).

Database 101 has a fluid state rather than a static state in that the records of data are repeatedly divided as portions of database 101 are stored to the physically separate memory units 108-112. (Specification, Page 24, Lines 4-6). Because the security controller 106 periodically divides the database 101 and relocates the individual data records (singularly or in groups), the security controller 106 is the only source for utilizing the key to the data link structure. If a data record or group is accessed by an unauthorized user, there is no link available for the unauthorized user to view the other linked records. (Specification, Page 27, Line 16 to Page 28, Line 10).

The *Huang* reference discloses a system and a method of pass through in a heterogeneous distributed database environment. The *Huang* reference discloses a hybrid pass through feature that is a combination of a pass through mode and a native mode. (*Huang*, Column 2, Lines 5-13). There is nothing in the *Huang* reference that discloses, suggests or even hints at the security controller 106 of the Applicants' invention. The *Huang* reference does not disclose, suggest, or even hint at (1) a security controller 106 that periodically parses or disassembles a database into selectable records and stores the records in distributed memory units, or (2) a security controller 106 that divides a database on a periodic basis.

Unlike the security controller 106 of the Appellants' invention, the Interface Module 106 of *Huang* does not periodically parse or disassemble a database into selectable records and store

the records in distributed memory units (i.e., physically separate memory units). Unlike the security controller 106 of the Appellants' invention, the Interface Module 106 of *Huang* does not divide a database on a periodic basis. The *Huang* reference does not disclose an Interface Module 106 that performs the functions that are claimed in Claim 1.

That is, the Interface Module 106 of *Huang* does not "operate repeatedly on a periodic basis to (i) divide said into portions . . . . thereby systematically periodically redistributing said database over said distributed memory units; " (Emphasis added). In the *Huang* reference there is no disclosure of a systematic repetitive division and redistribution of a database for security purposes.

The Appellants' invention also comprises an access controller 104 that operates to repeatedly establish views of ones of the selectable records responsive to the security controller 106 periodically redistributing the database 101 over the distributed memory units 108-112. Access controller 104 manages login and grants access to security controller 106. (Specification, Page 21, Lines 1-2). Login to access controller 104 may cause information to be retrieved from a profile table to create code for linking appropriate data records for the user to view or modify. The profile table is initially created by the authorized user and information in the table is used at every login to create a login table that allows security controller 106 to link the requested data records together to establish a view. (Specification, Page 25, Lines 2-8).

The *Huang* reference does not disclose, suggest or even hint at this feature of the Appellants' invention. There is nothing in the *Huang* reference that discloses, suggests or even hints at the access controller 104 of the Appellants' invention and its repeated operation to establish views of

ones of the selectable records responsive to security controller 106 periodically redistributing database 101 over the distributed memory units 108-112.

The Examiner stated that "Huang fails to explicitly disclose an embodiment wherein the security controller operates to periodically distribute the database over the said units, where the units are memory units." (April 21, 2006 Office Action, Page 7, Lines 14-15). The Appellants agree that the *Huang* reference does not disclose this feature.

The Examiner stated that the WESS reference discloses the concept of defragmenting a disk drive and that it would have been obvious to combine this concept with the teachings of the *Huang* reference. (April 21, 2006 Office Action, Page 7, Line 16 to Page 8, Line 8). One portion of the Office Action states that "WESS discloses an embodiment wherein the controller operates to periodically re-distribute the database over the memory units of the hard drive, ie, the files of the database." (April 21, 2006 Office Action, Page 8, Lines 1-2). The Appellants respectfully disagree with the Examiner's characterization of the disclosure of the WESS reference and the Examiner's assumption that the "files of the database" are equivalent to the "memory units of the hard drive."

In a fragmentation process, as known to those of skill in the art, files are not "distributed" but are rather "compacted," that is, rewritten to contiguous blocks of sectors of hard disk space. The Examiner's statement appears to suggest that the "memory units" over which the database is "distributed" are "the files of the database." On the contrary, in a typical defragmentation process, individual files (including database files) are rewritten to be physically stored on

substantially contiguous blocks of sectors. The hard drive's logical file structure is intended to be unaffected, so that programs can continue to operate normally. No databases would be "re-distributed" between files in the database, as the April 21, 2006 Office Action would appear to suggest.

WESS describes on Page 31 that a hard drive should be defragmented, and indicates that a Microsoft tool should be used. Microsoft itself describes, with relation to "Windows 98":

> When a program is installed on your computer, the program's files may be broken up over multiple locations on your hard disk. This is called fragmentation. If fragmentation occurs on your hard disk, the performance of programs on your computer is slower. The Disk Defragmenter tool optimizes the performance of your computer by reorganizing the files on your hard disk into contiguous blocks. When the Disk Defragmenter tool completes the defragmentation of files on your hard disk, the performance of your programs is faster because the files are arranged closer together. (See http://support.microsoft.com/default.aspx?scid=kb;EN-US;186171)

In short, in a defragmentation process described in WESS and known to those of skill in the art, the "memory units" can only be hard disk sectors or blocks of them. Each of the Appellants' independent claims (Claims 1, 6, 11, and 15) requires one or more computer systems having "distributed memory units." Page 22 of the specification states that:

> "Distributed memory unit," for purposes hereof, can be defined broadly, as any at least two physically separate memory units, whether locally or remotely; for instance, memory units 108-112 are locally associated with database server 100. In contrast, according to a related embodiment, a remotely distributed memory unit may be

> physically associated with another server, in a computer on a connected local area network, wide area network, a connected computer somewhere on the Internet or the like. (Specification, Page 22, Lines 4-12).

As can be seen, in the context of the present application, no reasonable interpretation of the claim term "distributed memory units" can include individual sectors on a common hard disk drive. The term "distributed memory units" refers to at least two physically separate memory units. The Examiner's use of a defragmentation process fails to be a "broadest reasonable interpretation" of the claims, in light of the plain meaning of "distributed" and the specific definition in the specification.

The WESS reference only teaches the concept of defragmenting one hard drive. The WESS reference states "When excessive fragmentation occurs, the drive should be defragmented. * * * It is recommended that the database manager periodically defragment the hard drive where the WESS database resides, after backing up the data." (Emphasis added) (WESS, Page 31). The WESS reference discloses that the WESS database is located only on one hard drive (i.e., the hard drive) and that the defragmentation process is conducted on the one hard drive. The defragmenting process described in the WESS reference does not disclose the concept of periodically distributing separate portions of a database to at least two physically separate memory units. The WESS reference fails to teach this limitation of the claims.

Furthermore, other examples from the prior art show that the concept of disk fragmentation only applies to one hard drive. The Microsoft Computer Dictionary (5th edition)

describes the process of defragmenting in the following manner.

> The process of rewriting parts of a file to contiguous sectors on a hard disk to increase the speed of access and retrieval. When files are updated, the computer tends to save these updates on the largest continuous space on the hard disk, which is often on a different sector than the other parts of the file. When files are thus "fragmented," the computer must search the hard disk each time the file is accessed to find all of the file's parts, which slows down the response time. (Emphasis added) (Microsoft Computer Dictionary (5th edition), Page 151).

It is clear from the foregoing definition that the concept of defragmentation relates to defragmenting by distributing portions of a computer file on a single hard disk. This definition of defragmentation was also set forth in the April 21, 2006 Office Action. (April 21, 2006 Office Action, Page 4, Lines 1-6).

The Examiner also cited U. S. Patent No. 6,130,759 to Blair ("*Blair*") to supposedly illustrate the defragmentation of the image transfer device as a "redistributing" process. (April 21, 2006 Office Action, Page 5, Lines 8-15). The *Blair* reference describes a defragmentation process that is carried out within a single memory unit (i.e., dynamic random access memory 40). The buffers 42, 44 and 46 that are used in the process are part of the DRAM unit 40. The buffers 42, 44 and 46 are not physically separate memory units. The *Blair* reference does not teach, suggest or even hint at the concept of periodically distributing separate portions of a database to at least two physically separate memory units. Therefore, the *Blair* reference fails to teach this limitation of the claims.

For the reasons set forth above the Appellants respectfully submit that the concept of defragmentation as set forth in the WESS reference (and in other prior art) does not teach,

suggest or even hint at the Appellants' concept of periodically distributing separate portions of a database to at least two physically separate memory units.

Therefore, the Appellants respectfully traverse the Examiner's assertion that "It would have been obvious to one of ordinary skill in the art at the time of the invention to periodically distribute the database over said memory units, in the hard drives in which the database resides in order to keep the fragmentation of the database and other files residing on the hard drive to a minimum and prevent search performance from suffering. (April 21, 2006 Office Action, Page 8, Lines 5-8).

The Appellants respectfully submit that the supposed motivation to combine the references is legally insufficient and too vague. The supposed motivation was said to be "in order to keep the fragmentation of the database and other files residing on the hard drive to a minimum and prevent search performance from suffering." This supposed motivation is very general and does not specifically suggest combining the *Huang* reference and the WESS reference, especially in view of the fact that neither the *Huang* reference nor the WESS reference discloses the concept of periodically distributing separate portions of a database to at least two physically separate memory units. The Appellants respectfully submit that the motivation to combine the two references comes from a hindsight consideration of the Appellants' specification and the disclosures therein.

Furthermore, even if the *Huang* reference and the WESS reference could be properly combined (which the Appellants do not admit), there would still be no teaching or suggestion in the

combination of the two references of all of the claim limitations of the Appellants' independent claims (Claims 1, 6, 11 and 15). The combination of the *Huang* reference and the WESS reference is clearly legally insufficient to serve as a combination that would cause Claim 1 (or Claim 6 or Claim 11 or Claim 15) to be obvious. Therefore, the Patent Office has not carried the burden of establishing a *prima facie* case of obviousness. The obviousness rejections of Claims 1, 6, 11 and 15, and of their respective dependent Claims 2-5, 7-10, 12-14, and 16-18 are respectfully traverses for the reasons set forth above. Claims 1-18 should be allowed over the *Huang* reference and over the WESS reference whether taken individually or in combination. Withdrawal of the rejections of Claims 1-18 is respectfully requested.

C. REJECTIONS OF CLAIMS 1, 6, 11 and 15

The Appellants respectfully submit that Claims 1, 6, 11 and 15 are not obvious in view of a combination of the *Dwyer* reference and the WESS reference and that the Examiner has not established a *prima facie* case of obviousness with respect to Claims 1, 6, 11 and 15. Therefore, the Appellants respectfully request the Examiner to withdraw the obviousness rejections of Claims 1, 6, 11 and 15. The Appellants hereby incorporate by reference all of the comments made above concerning the Appellants' invention made with respect to the *Huang* reference and the WESS reference.

The Appellants respectfully submit that the *Dwyer* reference does not disclose, suggest or even hint at the security controller 106 or the access controller 104 of the Appellants' invention.

The *Dwyer* reference discloses a distributed database query optimization method that allows some query optimization to be done locally. (*Dwyer*, Column 2, Lines 50-54). The *Dwyer* method determines an optimal execution strategy for a request that comprises query, update or transaction operations on a distributed database system. (*Dwyer*, Column 3, Lines 12-15).

There is nothing in the *Dwyer* reference that discloses, suggests or even hints at the operation of the security controller 106 of the Appellants' invention. There is nothing in the *Dwyer* reference that is analogous to the Appellants' security controller 106 that periodically divides database 101 and relocates the individual data records (singularly or in groups). There is nothing in the *Dwyer* reference that is analogous to a security controller 106 that is a sole source for utilizing a key to a data link structure. Further, there is nothing in the *Dwyer* reference that discloses, suggests or even hints at the operation of the access controller 104 of the Appellants' invention.

The Examiner asserted that "Dwyer (Figure 1) discloses an apparatus for use in managing a database of selectable records, a database administrator for association with a computer system having distributed memory units. . . ." (April 21, 2006 Office Action, Page 10, Lines 1-3). The Appellants respectfully traverse this assertion of the Examiner for the following reasons.

Unlike the security controller 106 of the Appellants' invention, the External Schema 4 and the Conceptual Schema 6 of *Dwyer* do not periodically parse or disassemble a database into selectable records and store the records in distributed memory units (i.e., physically separate memory units). Unlike the security controller 106 of the Appellants' invention, the External Schema 4 and the Conceptual Schema 6 of *Dwyer* do not divide a database

on a periodic basis.

The *Dwyer* reference states that "The external schemas 4a, 4b, and 4c are descriptions of the users 2a, 2b, 2c and 2d views, and serve as the user interface. The conceptual schema 6 is a semantic description of the total distributed database." (*Dwyer*, Column 5, Lines 44-47). Therefore, the external schema 4 of *Dwyer* are user interface "descriptions." The conceptual schema 6 of *Dwyer* are "semantic descriptions" of a total distributed database. There is no disclosure of performing any of the claimed functions of the security controller 106 of the present invention.

While it may be possible to assign the label "security controller" to the External Schema 4 and the Conceptual Schema 6 of *Dwyer* the fact remains that the *Dwyer* reference does not disclose, suggest or even hint at any structure that performs the functions claimed in Claim 1 (or in Claim 6 or in Claim 11 or in Claim 15).

That is, the External Schema 4 and the Conceptual Schema 6 of *Dwyer* do not "operate repeatedly on a periodic basis to (i) divide said into portions . . . . thereby systematically periodically redistributing said database over said distributed memory units; " (Emphasis added). In the *Dwyer* reference there is no disclosure, suggestion or hint of a systematic repetitive division and redistribution of a database for security purposes.

The Appellants' invention also comprises an access controller 104 that operates to repeatedly establish views of ones of the selectable records responsive to the security controller 106 periodically redistributing the database 101 over the distributed memory units 108-112. Access controller 104 manages login and grants access to security controller 106. (Specification,

Page 21, Lines 1-2). Login to access controller 104 may cause information to be retrieved from a profile table to create code for linking appropriate data records for the user to view or modify. The profile table is initially created by the authorized user and information in the table is used at every login to create a login table that allows security controller 106 to link the requested data records together to establish a view. (Specification, Page 25, Lines 2-8).

The *Dwyer* reference does not disclose, suggest or even hint at this feature of the Appellants' invention. There is nothing in the *Dwyer* reference that discloses, suggests or even hints at the access controller 104 of the Appellants' invention and its repeated operation to establish views of ones of the selectable records responsive to security controller 106 periodically redistributing database 101 over the distributed memory units 108-112.

The Examiner stated that "Dwyer fails to explicitly disclose an embodiment wherein the controller operates to periodically distribute the database over the said units, where the units are memory units." (April 21, 2006 Office Action, Page 10, Lines 16-17). The Appellants agree that the *Dwyer* reference does not disclose this feature.

The Examiner stated that the WESS reference discloses the concept of defragmenting a disk drive and that it would have been obvious to combine this concept with the teachings of the *Dwyer* reference. (April 21, 2006 Office Action, Page 10, Line 18 to Page 18, Line 11). One portion of the April 21, 2006 Office Action states that "WESS discloses an embodiment wherein the controller operates to periodically re-distribute the database over the memory units of the hard drive, ie, the files of the database." (April 21, 2006 Office Action, Page 11, Lines 4-5).

The Appellants respectfully disagree with the Examiner's characterization of the disclosure of the WESS reference and the Examiner's assumption that the "files of the database" are equivalent to the "memory units of the hard drive."

At this point the Appellants re-assert all of the comments made above concerning the Appellants' invention made with respect to the WESS reference concerning the topic of defragmentation. In view of the Appellants' comments concerning the WESS reference the Appellants respectfully traverse the Examiner's assertion that "It would have been obvious to one of ordinary skill in the art at the time of the invention to periodically distribute the database over said memory units, in the hard drives in which the database resides in order to keep the fragmentation of the database and other files residing on the hard drive to a minimum and prevent search performance from suffering. (April 21, 2006 Office Action, Page 11, Lines 8-11).

The Appellants respectfully submit that the supposed motivation to combine the references is legally insufficient and too vague. The supposed motivation was said to be "in order to keep the fragmentation of the database and other files residing on the hard drive to a minimum and prevent search performance from suffering." This supposed motivation is very general and does not specifically suggest combining the *Dwyer* reference and the WESS reference, especially in view of the fact that neither the *Dwyer* reference nor the WESS reference discloses the concept of periodically distributing separate portions of a database to at least two physically separate memory units. The Appellants respectfully submit that the

motivation to combine the two references comes from a hindsight consideration of the Appellants' specification and the disclosures therein.

Furthermore, even if the *Dwyer* reference and the WESS reference could be properly combined (which the Appellants do not admit), there would still be no teaching or suggestion in the combination of the two references of all of the claim limitations of the Appellants' independent claims (Claims 1, 6, 11 and 15). The combination of the *Dwyer* reference and the WESS reference is clearly legally insufficient to serve as a combination that would cause Claim 1 or Claim 6 or Claim 11 or Claim 15 to be obvious. Therefore, the Patent Office has not carried the burden of establishing a *prima facie* case of obviousness. The obviousness rejections of Claim 1, Claim 6, Claim 11 and Claim 15 are respectfully traverses for the reasons set forth above. Claim 1, Claim 6, Claim 11 and Claim 15 should be allowed over the *Dwyer* reference and over the WESS reference whether taken individually or in combination. Withdrawal of the rejections of Claim 1, Claim 6, Claim 11 and Claim 15 is respectfully requested.

D. REJECTIONS OF CLAIMS 19-32

The Appellants respectfully submit that Claims 19-32 are not obvious in view of a combination of the *Huang* reference and the *Diaz* reference and that the Examiner has not established a *prima facie* case of obviousness with respect to Claims 19-32. Therefore, the Appellants respectfully request the Examiner to withdraw the obviousness rejections of Claims 19-32. The Appellants hereby incorporate by reference all of the comments made above

concerning the Appellants' invention made with respect to the *Huang* reference and the WESS reference and the *Dwyer* reference.

On Page 13 of the April 21, 2006 Office Action, the Examiner stated that "Huang however, fails to disclose information that is commercial and likewise, a communication system that acts in the context of an E-Commerce system." (April 21, 2006 Office Action, Page 13, Lines 9-10). For the reasons previously set forth, the Appellants respectfully traverse the assertion of the Examiner that the *Huang* reference discloses a security controller as disclosed and claimed by the Appellants. The Appellants also respectfully traverse the assertion of the Examiner that the *Huang* reference discloses an access controller as disclosed and claimed by the Appellants. The Appellants also respectfully traverse the assertion of the Examiner that the *Huang* reference discloses a security controller that systematically redistributes portions of a database over distributed memory units.

For the reasons discussed above with respect to the *Huang* reference and the WESS reference, the Appellants respectfully submit that the *Huang* reference and the WESS reference do not teach the claim limitations of Claim 19 that relate to the Appellants' security controller 106 and to the Appellants' access controller 104. The Appellants also respectfully submit that the *Diaz* reference does not contain any elements that are analogous to the Applicant's security controller 106 and the Appellants' access controller 104.

Independent claim 19 requires "a database administrator for association with distributed memory units, said database administrator comprising: a security controller that operates

repeatedly on a periodic basis to (i) divide said database into portions and (ii) store ones of said portions to ones of said distributed memory units, said security controller thereby systematically periodically redistributing said database over said distributed memory units."

On Page 7 of the April 21, 2006 Office Action, the Examiner explicitly stated that the *Huang* reference does not disclose that a controller operates to periodically distribute the database over memory units. (April 21, 2006 Office Action, Page 7, Lines 14-15). The Examiner makes no showing at all that this feature is taught or suggested by *Diaz*.

The obviousness rejections of Claims 19-32 rely on the combination of the *Huang* reference and the *Diaz* reference. Neither of these two references teaches or suggests the features of independent Claim 19. It is clear that independent Claim 19 and its dependent claims (Claims 20-32) are all allowable over *Huang* in view of *Diaz*. The Appellants respectfully submit that the obviousness rejections of Claims 19-32 stand traversed.

Under the applicable law, a prior art reference (or prior art references when combined) must teach or suggest all the claim limitations. The Appellants respectfully submit that there is insufficient teaching or suggestion in the prior art to combine the *Huang* reference and the *Diaz* reference. The Appellants respectfully submit that even if the *Huang* reference and the *Diaz* reference could be properly combined (which the Appellants do not admit), there would still be no teaching or suggestion in the combination of all of the claim limitations of Claim 19. The combination of the *Huang* reference and the *Diaz* reference is clearly legally insufficient to serve as a combination that would cause Claim 19 to be obvious. Therefore, the Patent Office has

not carried the burden of establishing a *prima facie* case of obviousness for Claim 19.

The Appellants respectfully submit that the rejection of Claim 19 under 35 U.S.C. §103(a) as being obvious in view of the *Huang* reference and the *Diaz* reference should be withdrawn and that Claim 19 should be passed to issue.

For the reasons set forth above, Appellants respectfully submit that Claim 19 contains unique and novel limitations. Appellants also respectfully submit that Claims 20 through 32 directly or indirectly depend from and contain all the unique and novel limitations contained in Claim 19. Therefore, Claims 20-32 are not obvious in view of the *Huang* reference or the *Diaz* reference or the combination of the *Huang* reference and the *Diaz* reference. The Appellants therefore respectfully submit that the rejection of Claims 19-32 under 35 U.S.C. §103(a) should be withdrawn and that Claims 19-32 be passed to issue.

The Appellants respectfully submit that Claims 1-32 are all patentable over the *Huang* reference and the WESS reference and the *Dwyer* reference and the *Diaz* reference whether taken individually or in combination. The Appellants respectfully request the withdrawal of the obviousness rejections of Claims 1-32 and that Claims 1-32 be passed to issue.

The Appellants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing arguments and response. The Appellants reserve the right to submit further arguments in support of their above stated position as well as the right to introduce relevant secondary considerations including long-felt but unresolved needs in the industry, failed

attempts by others to invent the invention, and the like, should that become necessary.

CONCLUSION

The Appellants have demonstrated that the present invention as claimed is clearly distinguishable over the prior art cited of record. Therefore, the Appellants respectfully request the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

The Appellants have previously paid the fees associated with the filing of the Appeal Brief. The Appellants do not believe that any additional fees are due. However, the Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fees) or credit any overpayments to Munck Butrus Deposit Account No. 50-0208.

Respectfully submitted,

MUNCK BUTRUS, P.C.

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APPENDIX A

PENDING CLAIMS

1. (Previously Presented) For use in managing a database of selectable records, a database administrator for association with a computer system having distributed memory units, said database administrator comprising:

a security controller that operates repeatedly on a periodic basis to (i) divide said database into portions and (ii) store ones of said portions to ones of said distributed memory units, said security controller thereby systematically periodically redistributing said database over said distributed memory units; and

an access controller that operates to repeatedly establish views of ones of said selectable records responsive to said security controller periodically redistributing said database over said distributed memory units.

2. (Original) The database administrator set forth in Claim 1 wherein said access controller is further operable to access ones of said selectable records.

3. (Original) The database administrator set forth in Claim 1 initially operable to instantiate said database of selectable records.

4. (Original) The database administrator set forth in Claim 3 wherein said initially instantiated database of selectable records is stored in a select memory unit.

5. (Original) The database administrator set forth in Claim 1 wherein said security controller is further operable, prior to subsequently dividing said database into portions, to combine said ones of said portions previously stored in ones of said distributed memory units in a select memory unit.

6. (Previously Presented) For use in managing a database of selectable records, a method of operating a database administrator, said database administrator for association with a computer system having distributed memory units, said method of operation comprising the steps of:

repeatedly operating a security controller on a periodic basis to (i) divide said database into portions and (ii) store ones of said portions to ones of said distributed memory units, said security controller thereby systematically periodically redistributing said database over said distributed memory units; and

operating an access controller to repeatedly establish views of ones of said selectable records responsive to said security controller periodically redistributing said database over said distributed memory units.

7. (Original) The method of operating the database administrator set forth in Claim 6 further comprising the step of accessing ones of said selectable records.

8. (Original) The method of operating the database administrator set forth in Claim 6 further comprising the step of initially instantiating said database of selectable records.

9. (Original) The method of operating the database administrator set forth in Claim 8 further comprising the step of storing said initially instantiated database of selectable records in a select memory unit.

10. (Original) The method of operating the database administrator set forth in Claim 6 further comprising the step of further operating said security controller, prior to subsequently dividing said database into portions, to combine said ones of said portions previously stored in ones of said distributed memory units in a select memory unit.

11. (Previously Presented) A computer system comprising:

a database of selectable records;

a plurality of networked computers associated with distributed memory units, ones of said plurality of networked computers associated with said database of selectable records; and

a database administrator for use in managing said database of selectable records, said database administrator operable to repeatedly on a periodic basis (i) divide said database into portions, (ii) store ones of said portions to ones of said distributed memory units to thereby systematically periodically redistribute said database over said distributed memory units and (iii) establish views of ones of said selectable records in response to periodically redistributing said database over said distributed memory units.

12. (Original) The computer system set forth in Claim 11 wherein said database administrator is further operable to access ones of said selectable records.

13. (Original) The computer system set forth in Claim 11 wherein said initially instantiated database of selectable records is stored in a select memory unit.

14. (Original) The computer system set forth in Claim 11 wherein said database administrator is further operable, prior to subsequently dividing said database into portions, to combine said ones of said portions previously stored in ones of said distributed memory units in a select memory unit.

15. (Previously Presented) A method of operating a computer system to manage a database of selectable records, said computer system comprising a plurality of networked computers associated with distributed memory units, ones of said plurality of networked computers operable to share access with said database of selectable records, said method comprising the steps of

initially instantiating said database of selectable records;

repeatedly on a periodic basis dividing said database into portions and storing ones of said portions to ones of said distributed memory units, thereby systematically periodically redistributing said database over said distributed memory units; and

repeatedly establishing views of ones of said selectable records in response to periodically redistributing said database over said distributed memory units.

16. (Original) The method of operating the computer system to manage a database of selectable records set forth in Claim 15 further comprising the step of accessing ones of said selectable records.

17. (Original) The method of operating computer system to manage a database of selectable records set forth in Claim 15 further comprising the step of storing said initially instantiated database of selectable records in a select memory unit.

18. (Original) The method of operating computer system to manage a database of selectable records set forth in Claim 15 further comprising the step of further combining, prior to subsequently dividing said database into portions, said ones of said portions previously stored in ones of said distributed memory units in a select memory unit.

19. (Previously Presented) For use over a global communications network having company nodes and constituency nodes associated therewith, an electronic commerce system comprising:

a database of selectable data files associated with said company nodes, wherein said company nodes populate respective associated data files with commercial information;

a communications controller that is operable to (i) propagate communication interfaces accessible by said constituency nodes with selected portions of said commercial information under direction of said company nodes, and (ii) gather feedback information representative of constituency response to said constituency nodes accessing said communication interfaces; and

a database administrator for association with distributed memory units, said database administrator comprising:

a security controller that operates repeatedly on a periodic basis to (i) divide said database into portions and (ii) store ones of said portions to ones of said distributed memory units, said security controller thereby systematically periodically redistributing said database over said distributed memory units; and

an access controller that operates to repeatedly establish views of ones of said selectable records responsive to said security controller periodically redistributing said database over said distributed memory units.

20. (Original) The electronic commerce system for use over a global communications network recited in Claim 19 wherein said communications controller is further operable to process said gathered feedback information and, in response thereto, modify ones of said data files.

21. (Original) The electronic commerce system for use over a global communications network recited in Claim 19 wherein said communications controller is further operable to analyze said gathered feedback information and ones of said data files and, in response thereto, to report results thereof to said company node.

22. (Original) The electronic commerce system for use over a global communications network recited in Claim 19 wherein said communications controller, while gathering said feedback information, employs mathematical representations to represent at least one of constituency understanding and constituency reaction.

23. (Previously Presented) The electronic commerce system for use over a global communications network recited in Claim 19 further comprising a security controller that is operable, with respect to those data files associated with said company node, to limit access to said data files to designated personnel of said company nodes.

24. (Original) The electronic commerce system for use over a global communications network recited in Claim 23 wherein said security controller includes an interactive voice recognition controller that is operable to verify the identity of said designated personnel.

25. (Original) The electronic commerce system for use over a global communications network recited in Claim 19 wherein said communications controller is further operable to translate said selected portions of said commercial information from a first language into a second language.

26. (Original) The electronic commerce system for use over a global communications network recited in Claim 19 wherein said communications controller is further operable to store, index and relate associated portions of said commercial information in the data repository.

27. (Original) The electronic commerce system for use over a global communications network recited in Claim 19 wherein said access controller is further operable to access ones of said selectable data files.

28. (Original) The electronic commerce system for use over a global communications network recited in Claim 19 wherein said database administrator is initially operable to instantiate said database of selectable data files.

29. (Original) The electronic commerce system for use over a global communications network recited in Claim 28 wherein said initially instantiated database of selectable data files is stored in a select memory unit.

30. (Original) The electronic commerce system for use over a global communications network recited in Claim 19 wherein said security controller is further operable, prior to subsequently dividing said database into portions, to combine said ones of said portions previously stored in ones of said distributed memory units in a select memory unit.

31. (Original) The electronic commerce system for use over a global communications network recited in Claim 19 wherein said communications controller is further operable to organize said selected portions of said commercial information that propagate said communication interfaces into channels accessible by said constituency nodes.

32. (Original) The electronic commerce system for use over a global communications network recited in Claim 31 wherein said channels include at least two of an overview channel, an outlook channel, a community consensus channel, a community forecast channel, a research channel, an online q&a channel, an online conference channel, a financial history channel and a newsroom channel.

APPENDIX B

EVIDENCE APPENDIX

None

APPENDIX C

RELATED PROCEEDINGS APPENDIX

None